

FIG. 1

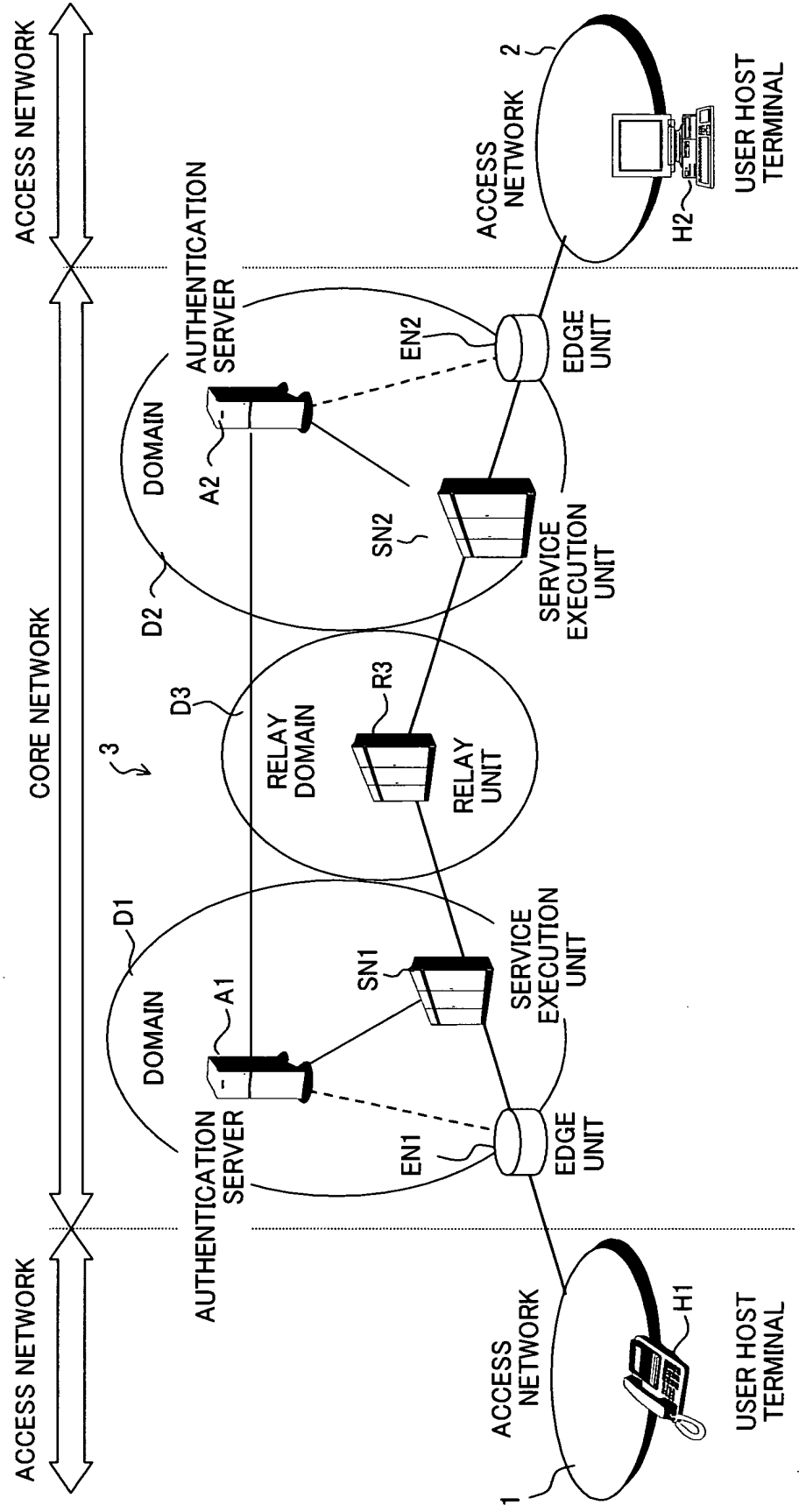


FIG. 2A

AN EXAMPLE OF L-SPC

ITEM	NAME	CONTRACT CONDITION	COMMENT
1	DATA COMPRESSION (CONNECTION SITE NOT SPECIFIED)	COMPRESS DATA IF HTTP	EXECUTED BY A SOURCE OF TRANSFER FOR CONTROLLING AT PROTOCOL LEVEL
2	IP TELEPHONE CHARGE DISCOUNT (TELEPHONE COMPANY NOT SPECIFIED)	INSERT 15 SECONDS VOICE CM BEFORE START	TELEPHONE CHARGE IS DISCOUNTED BECAUSE OF INSERTION OF SPONSOR CM
3	E-COMMERCE (Business to Consumer)	APPLY UNCONDITIONARY SSL (PACKET ENCRYPTION) TO SITE	THERE EXIST MANY SITES HAVING THE SAME KIND OF CONDITION

FIG. 2B

AN EXAMPLE OF GLOBAL SPC

ITEM	NAME	CONTRACT CONDITION	COMMENT
1	STREAMING SERVICE PROVIDED BY COMPANY A	INSERT 30 SECONDS CM BEFORE BROADCAST	TELEPHONE CHARGE IS DISCOUNTED BECAUSE OF INSERTION OF SPONSOR CM
2	IP TELEPHONE	TELEPHONE CHARGE IS DISCOUNTED IF A CERTAIN TELEPHONE COMPANY IS SPECIFIED	DEFINED IN G-SPC BECAUSE DESTINATION TELEPHONE COMPANY ONLY IS REFERRED TO
3	E-COMMERCE (Business to Consumer)	PROVIDE A DESIGNATED SPECIFIC ENCRYPTION SYSTEM WITH A CERTAIN SITE	A CASE PROVIDING A SPECIFIC FUNCTION OF A SITE

FIG. 3

**THE L-SPC REQUEST MESSAGE TRANSMISSION PROCESSING
BY THE APPLICATION AUTHENTICATION MODULE**

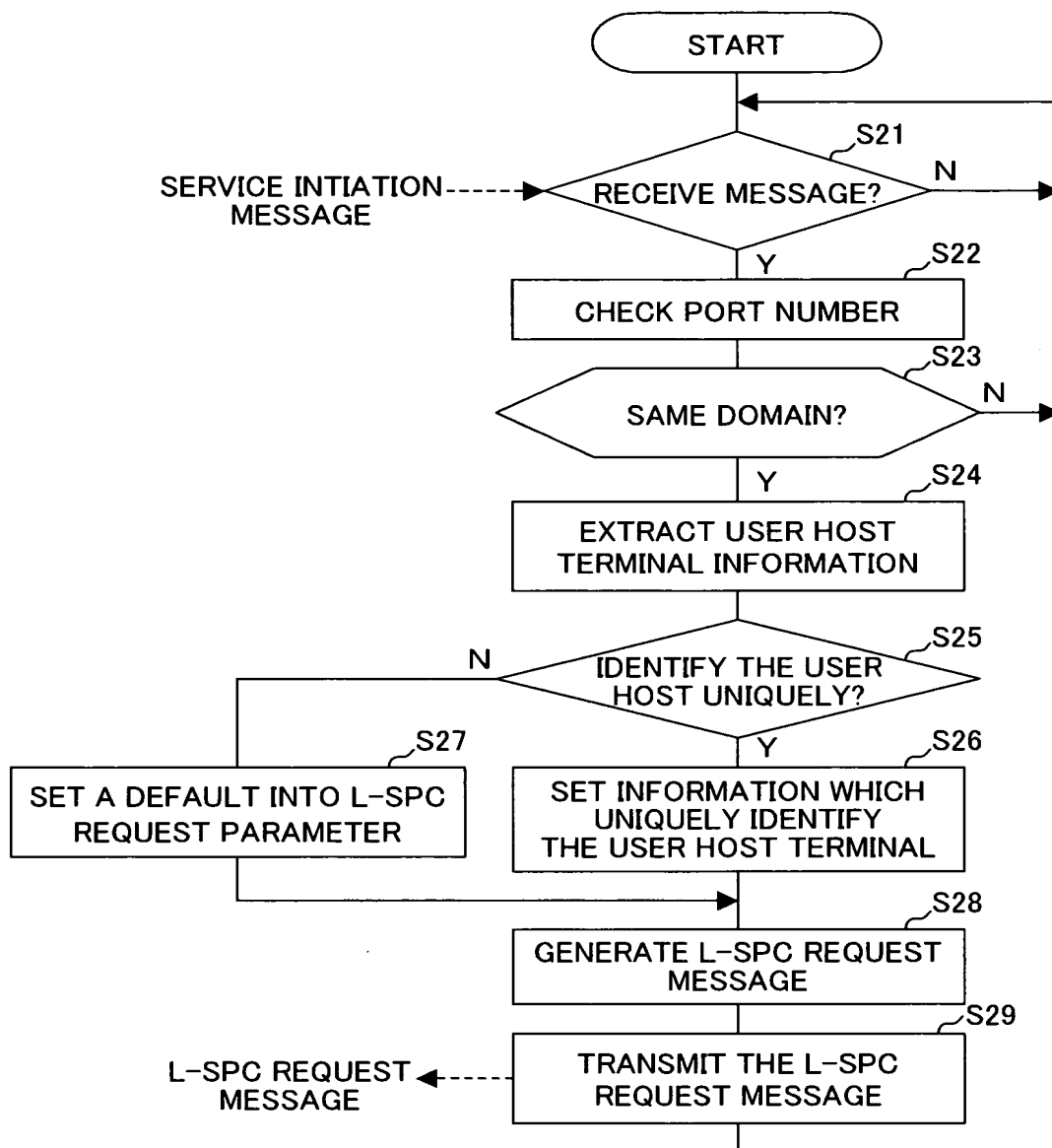


FIG. 4

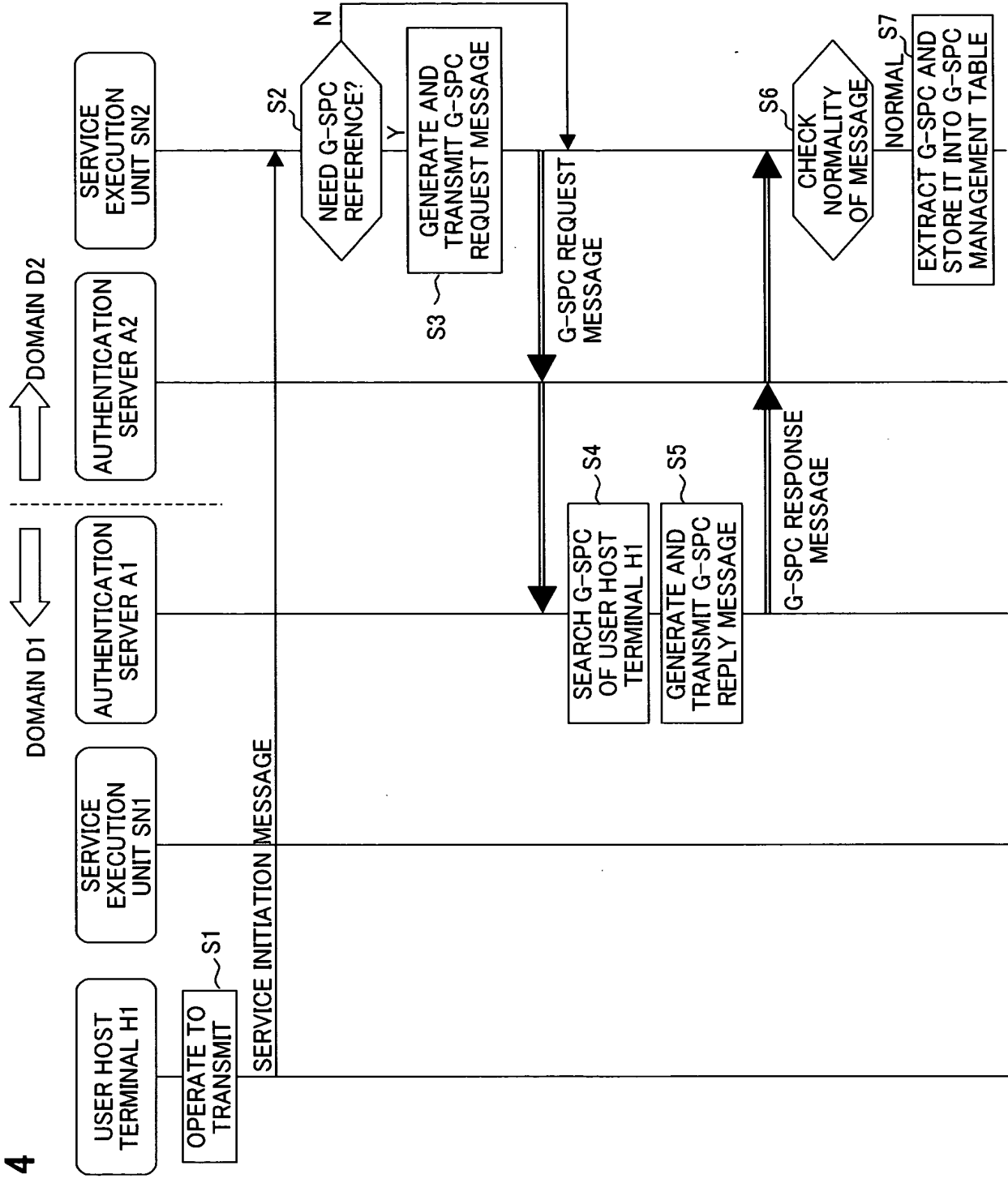


FIG. 5

THE G-SPC REQUEST MESSAGE TRANSMISSION PROCESSING
BY THE APPLICATION AUTHENTICATION MODULE

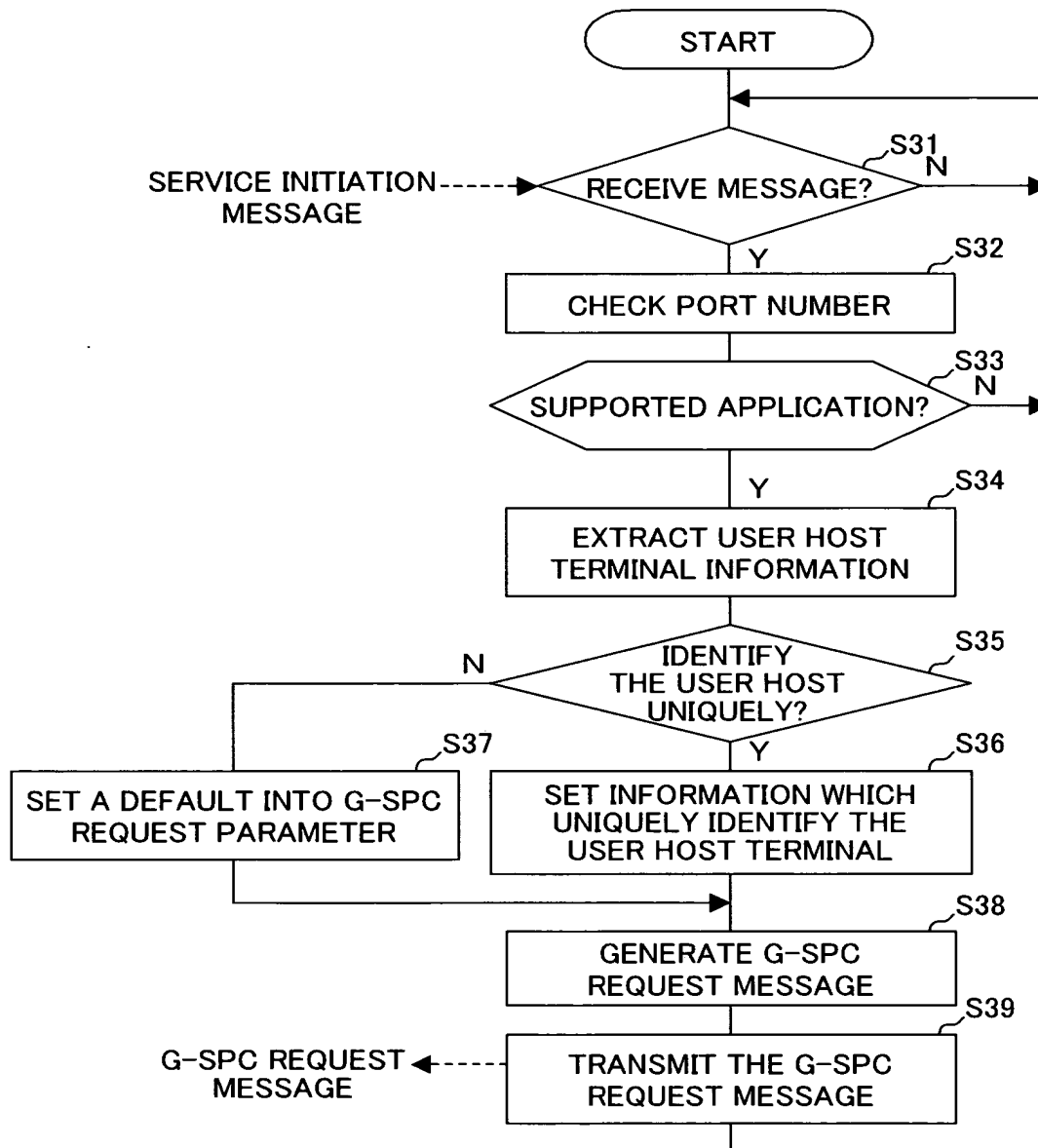


FIG. 6A

G-SPC/L-SPC REQUEST MESSAGE

IP/TCP/UDP PACKET HEADER	MESSAGE TYPE CODE	HOST ID INFORMATION 1 (IP ADDRESS)	HOST ID INFORMATION 2 (NAI)
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FIG. 6B

G-SPC/L-SPC RESPONSE MESSAGE

IP/TCP/UDP PACKET HEADER	MESSAGE TYPE CODE	HOST ID INFORMATION 1 (IP ADDRESS INCLUDED IN REQUEST MESSAGE)	HOST ID INFORMATION 2 (NAI INCLUDED IN REQUEST MESSAGE)	SEARCHED SPC (L-SPC/G-SPC)	RETURN CODE
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FIG. 7

L-SPC/G-SPC RESPONSE MESSAGE RECEPTION PROCESSING
BY THE APPLICATION AUTHENTICATION MODULE

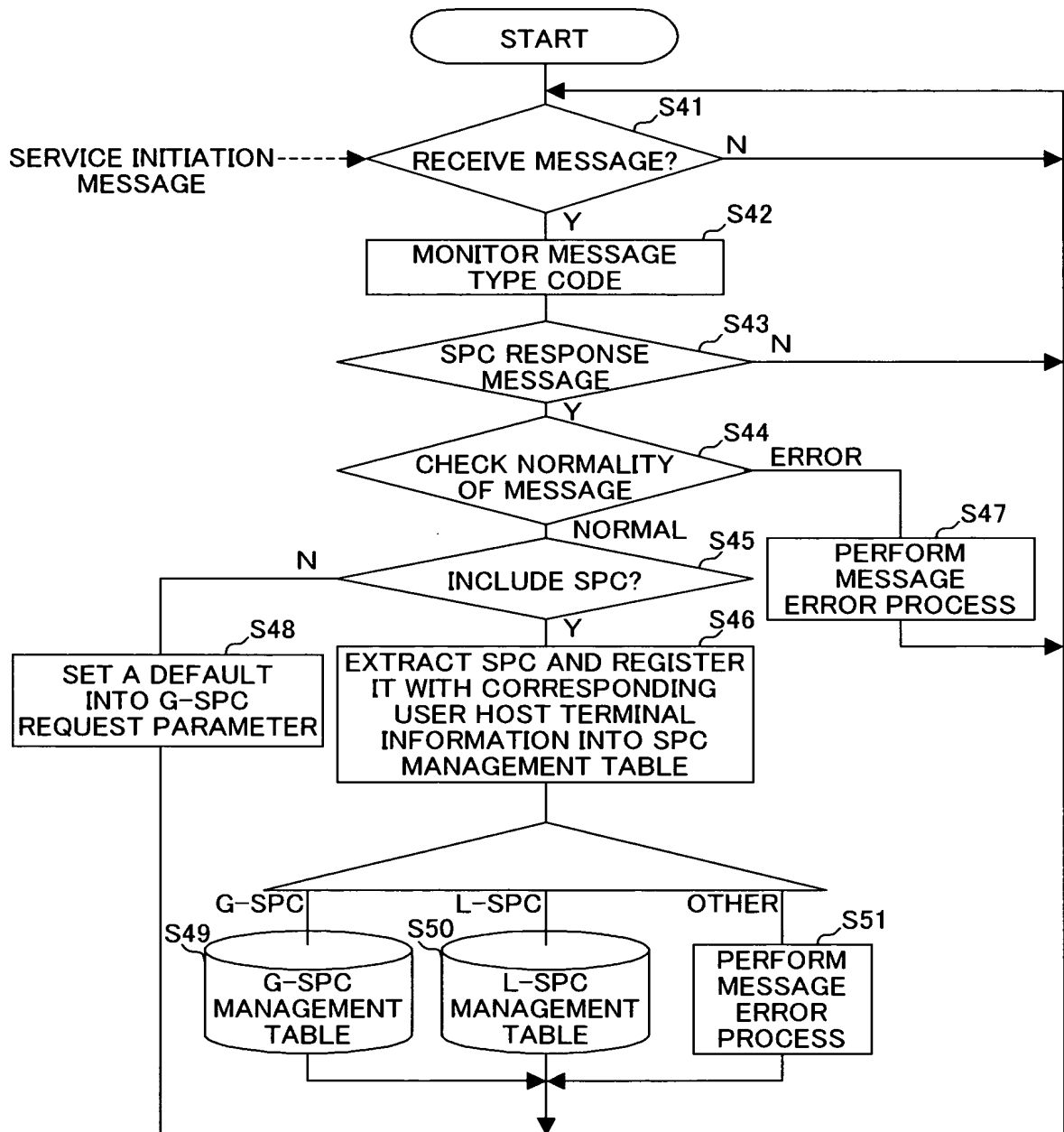


FIG. 8

MAIN SPC TABLE

USER NUMBER	BASIC CONTRACT INFORMATION	L-SPC POINTER	G-SPC POINTER
000001	192.168.1.1	0x343232	0x343232
000002	192.168.1.2	0x234234	0x234234
000003	192.168.1.3	0x115764	0x115764
000004	192.168.1.4	0x723411	0x723411
000005	192.168.1.5	0x098712	0x098712
000006	192.168.1.6	0x561218	0x561218
000007	192.168.1.7	0x131981	0x131981
000256	192.168.1.255	0x971341	0x971341

L-SPC TABLE PROVIDED FOR EACH USER (USER NUMBER 00001)

SPC NUMBER	CONDITION 1 (PORT NUMBER)	CONDITION 2 (HOST ADDRESS)	SPC CONTENT
1	80(HTTP)	EXTERNAL DOMAIN	APPLY ACCESS FILTER
2	XXX(VoIP-SIP)	NOT SPECIFIED	5% DISCOUNT OF TOLL CALL CHARGE

S-SPC TABLE PROVIDED FOR EACH USER (USER NUMBER 00001)

SPC NUMBER	CONDITION 1 (PORT NUMBER)	CONDITION 2 (HOST ADDRESS)	SPC CONTENT
1	80(HTTP)	12.123.124.255	CONTENTS CONVERSION (TRANSLATION)
2	25(SMTP)	15.67.23.21	MAIL VIRUS CHECK
3	XXX(VoIP-SIP)	23.45.56.223	AD DISTRIBUTION TO USER HOST TERMINAL

FIG. 9

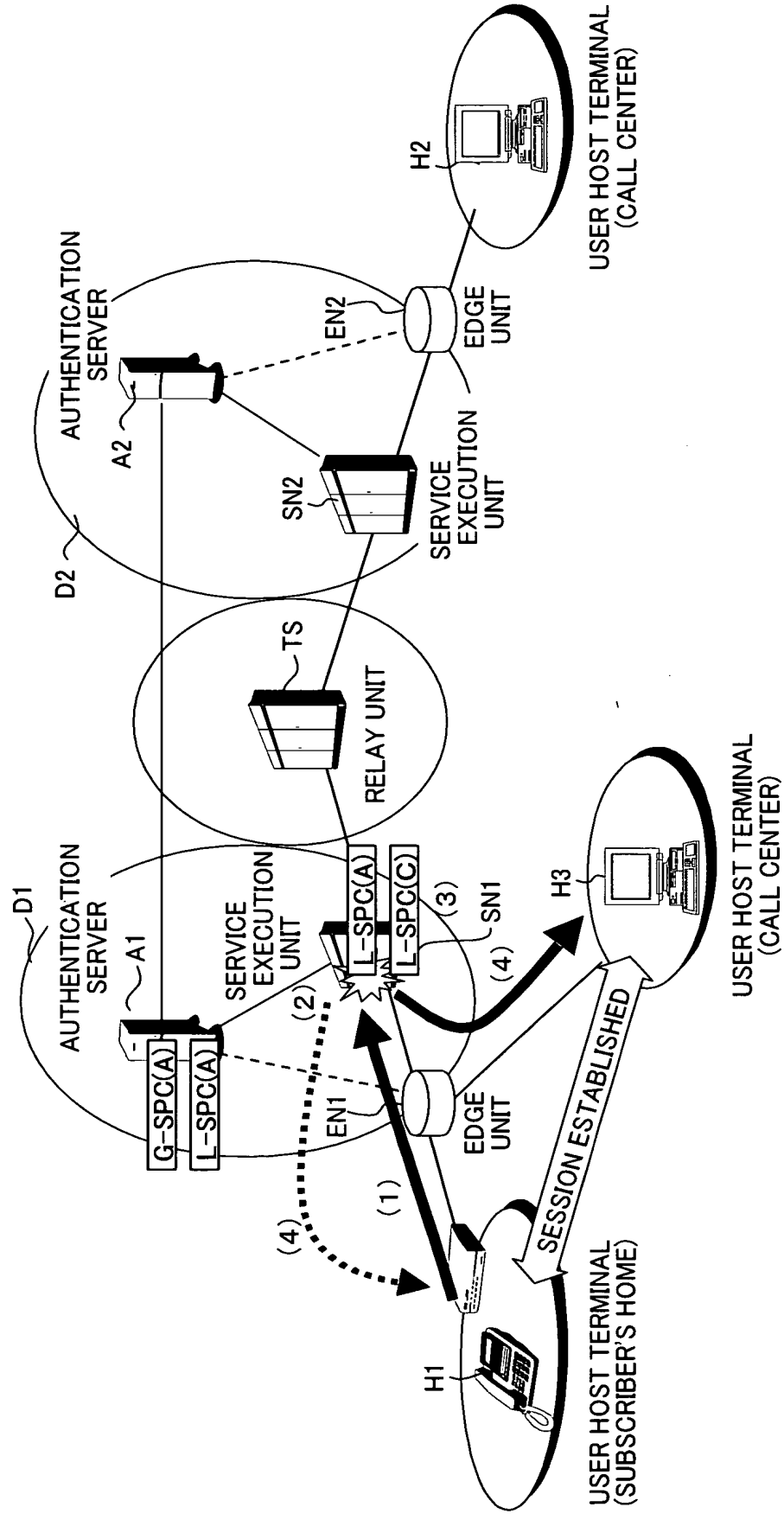


FIG. 10

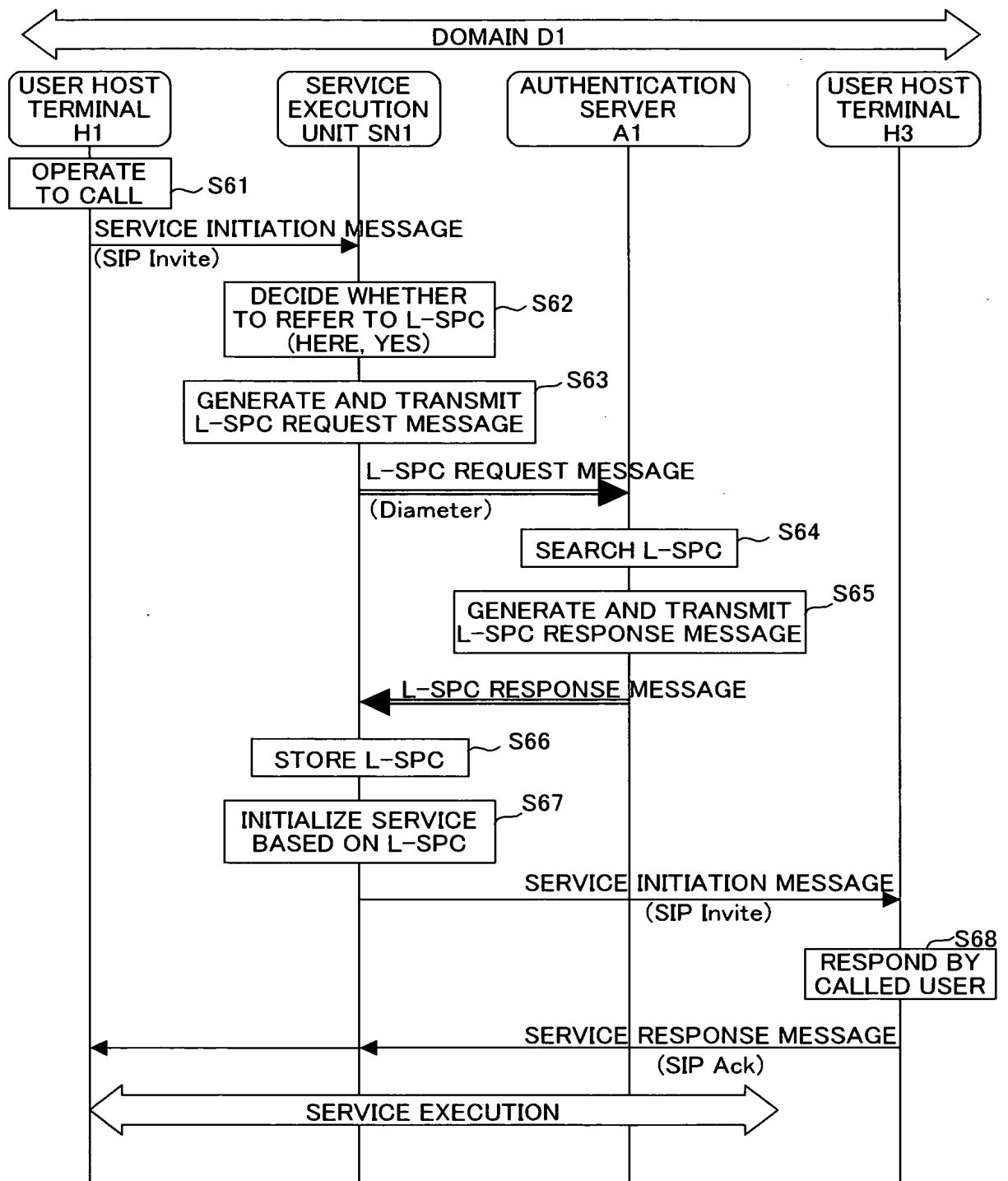
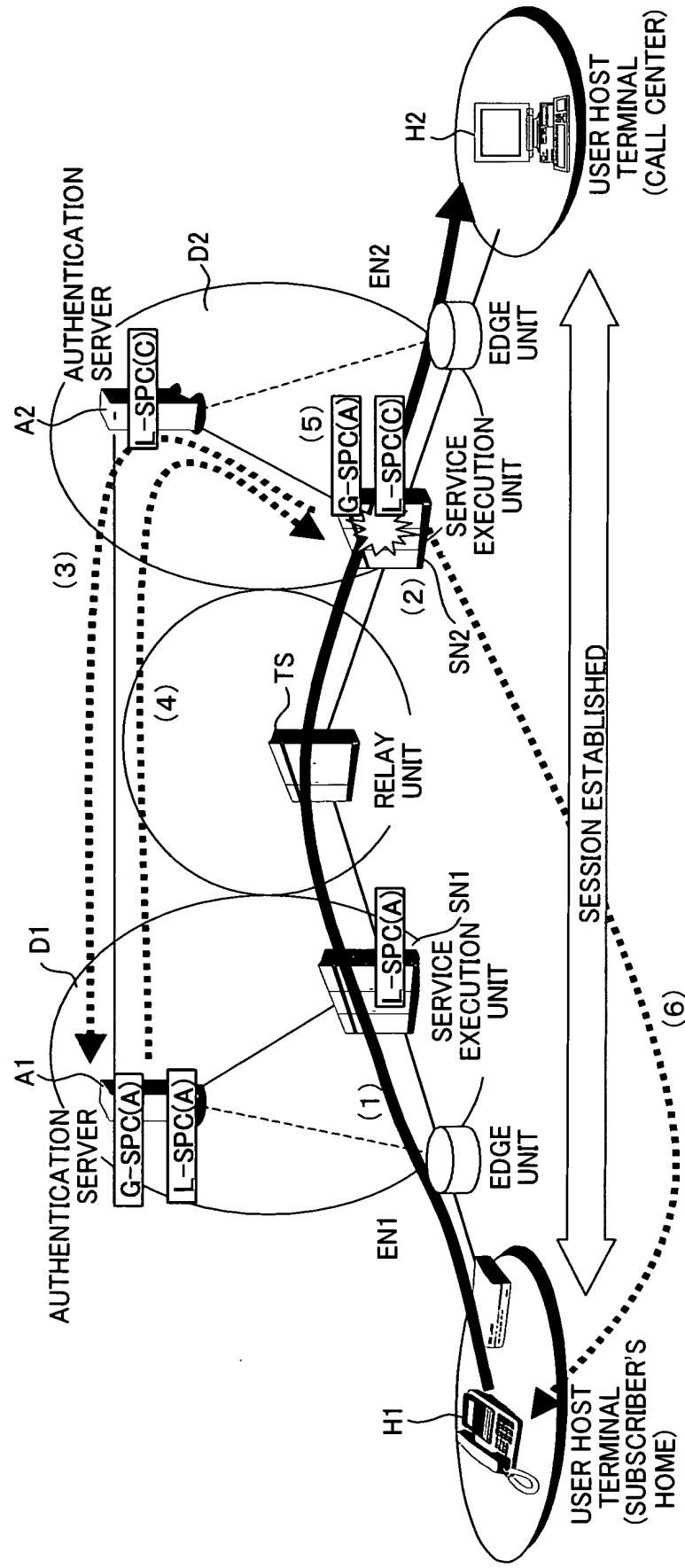


FIG. 11



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sequenceDiagram
    participant H1 as Host Terminal 1
    participant SN1 as Service Execution Unit SN1
    participant A1 as Authentication Server A1
    participant D1 as Domain D1

    H1->>SN1: Generate Call S71
    SN1->>A1: Service Initiation Message (SIP Invite) S72
    A1->>SN1: Decide Whether to Refer to L-SPC (Here, No) S72
    SN1->>A1: Service Initiation Message (SIP Invite) S73
    A1->>D1: Generate and Transmit G-SPC Request Message S74
    D1->>A1: G-SPC Request Message (Diameter) S75
    A1->>SN1: G-SPC Response Message S76
    SN1->>A1: Generate and Transmit G-SPC Response Message S77
    A1->>D1: G-SPC Response Message S78
    D1->>A1: Service Initiation Message (SIP Invite) S79
    A1->>SN1: Service Response Message (SIP Ack)
    SN1->>H1: Service Execution
  
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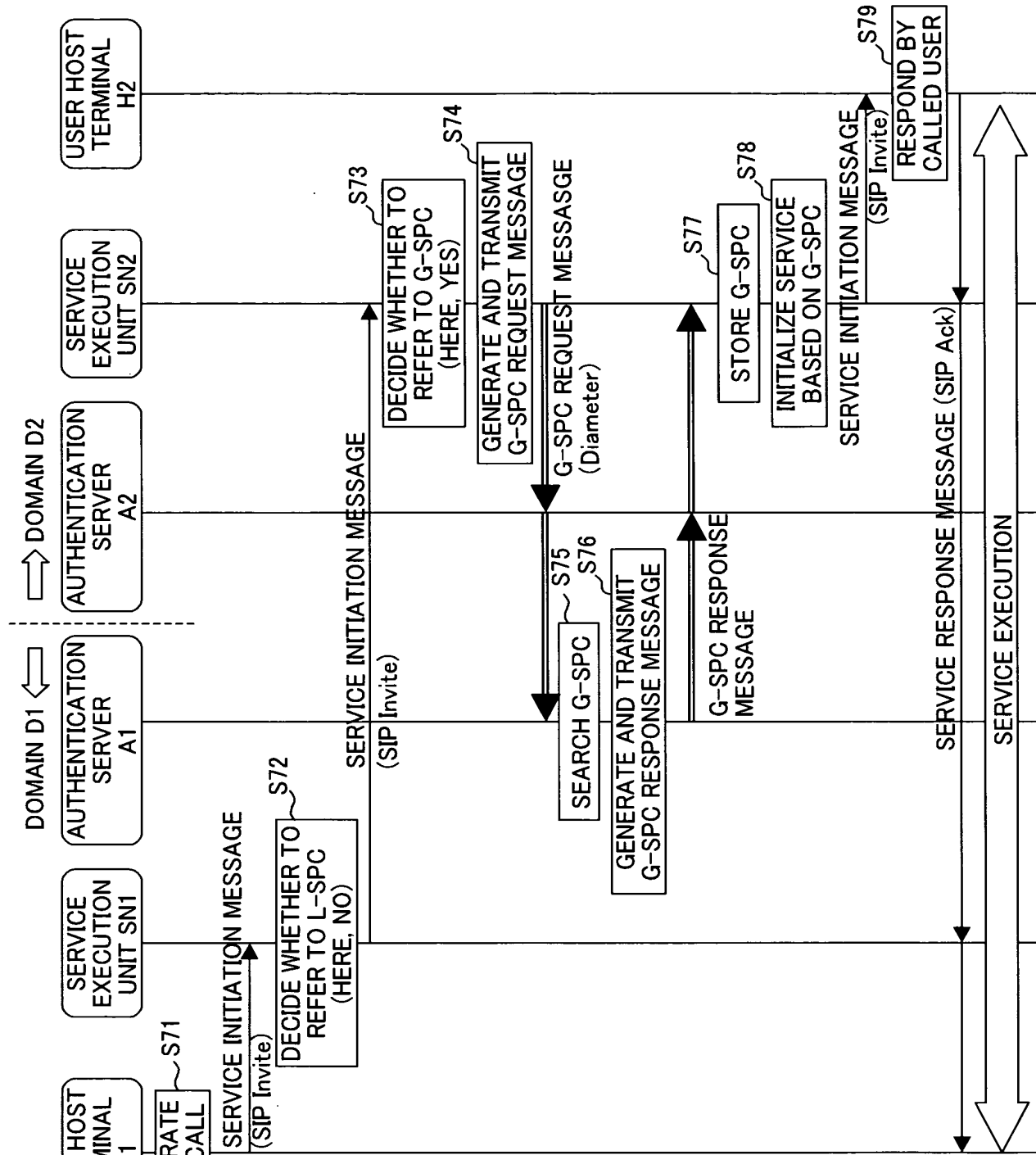


FIG. 13

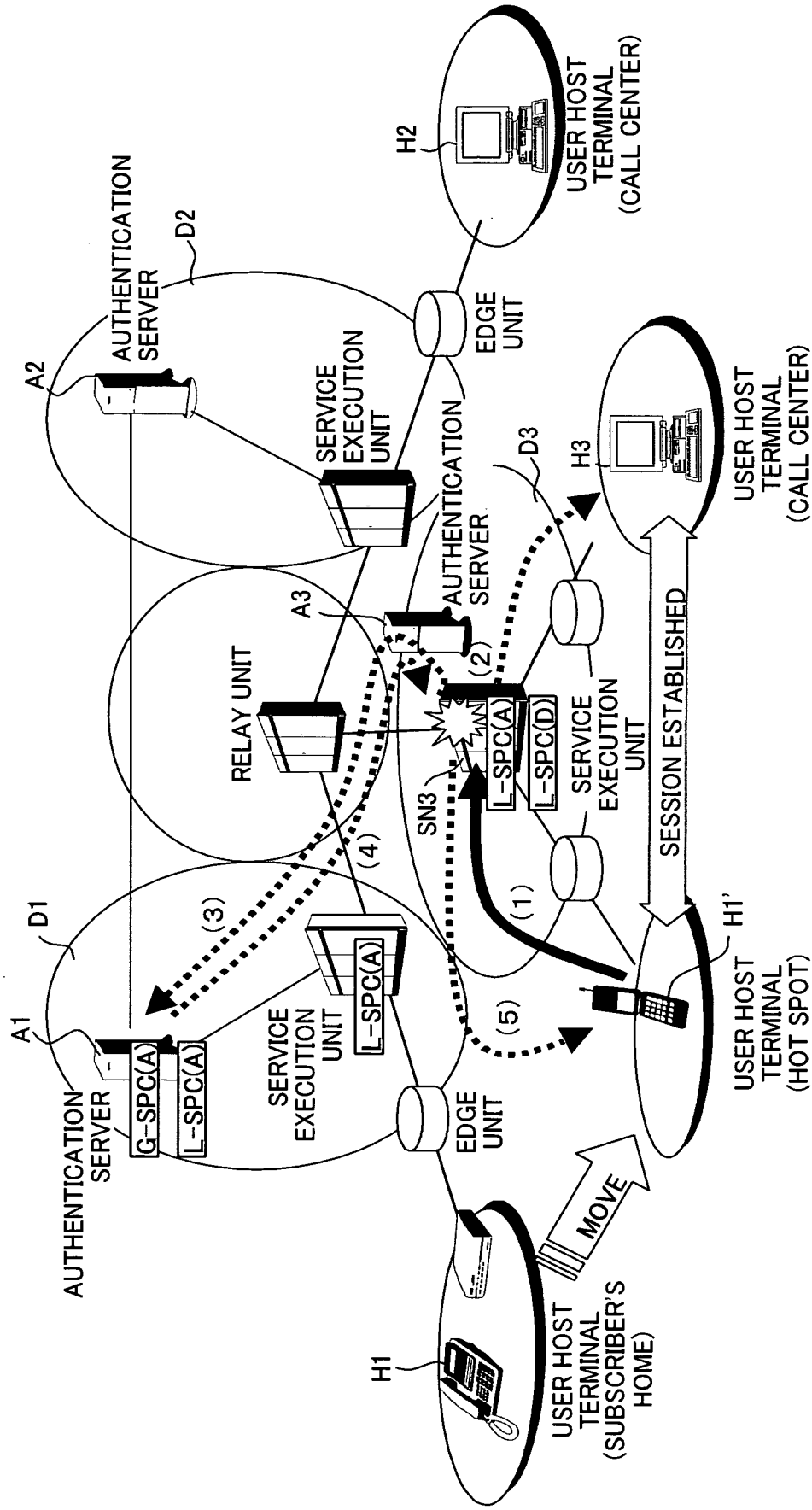


FIG. 14

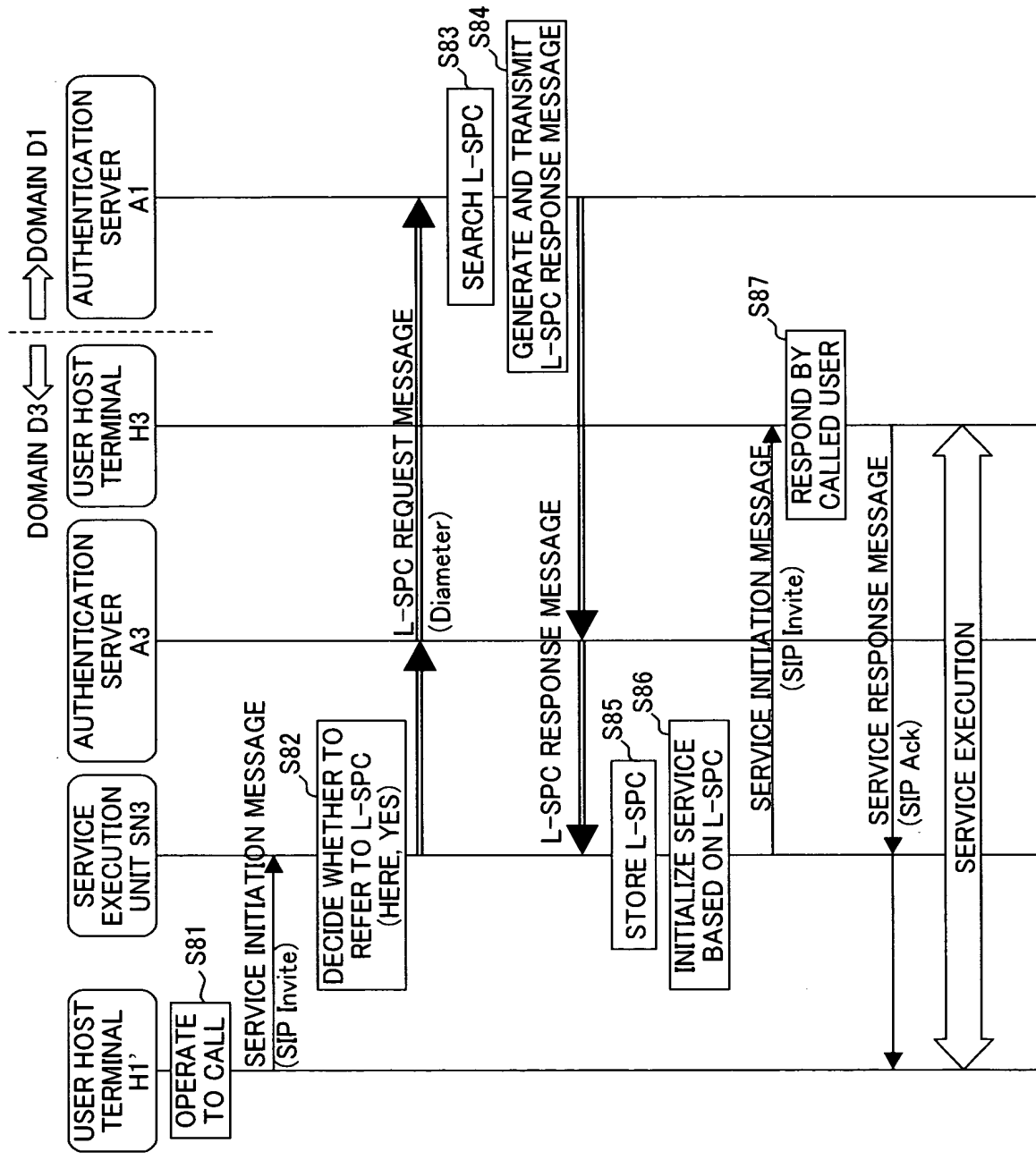


FIG. 15

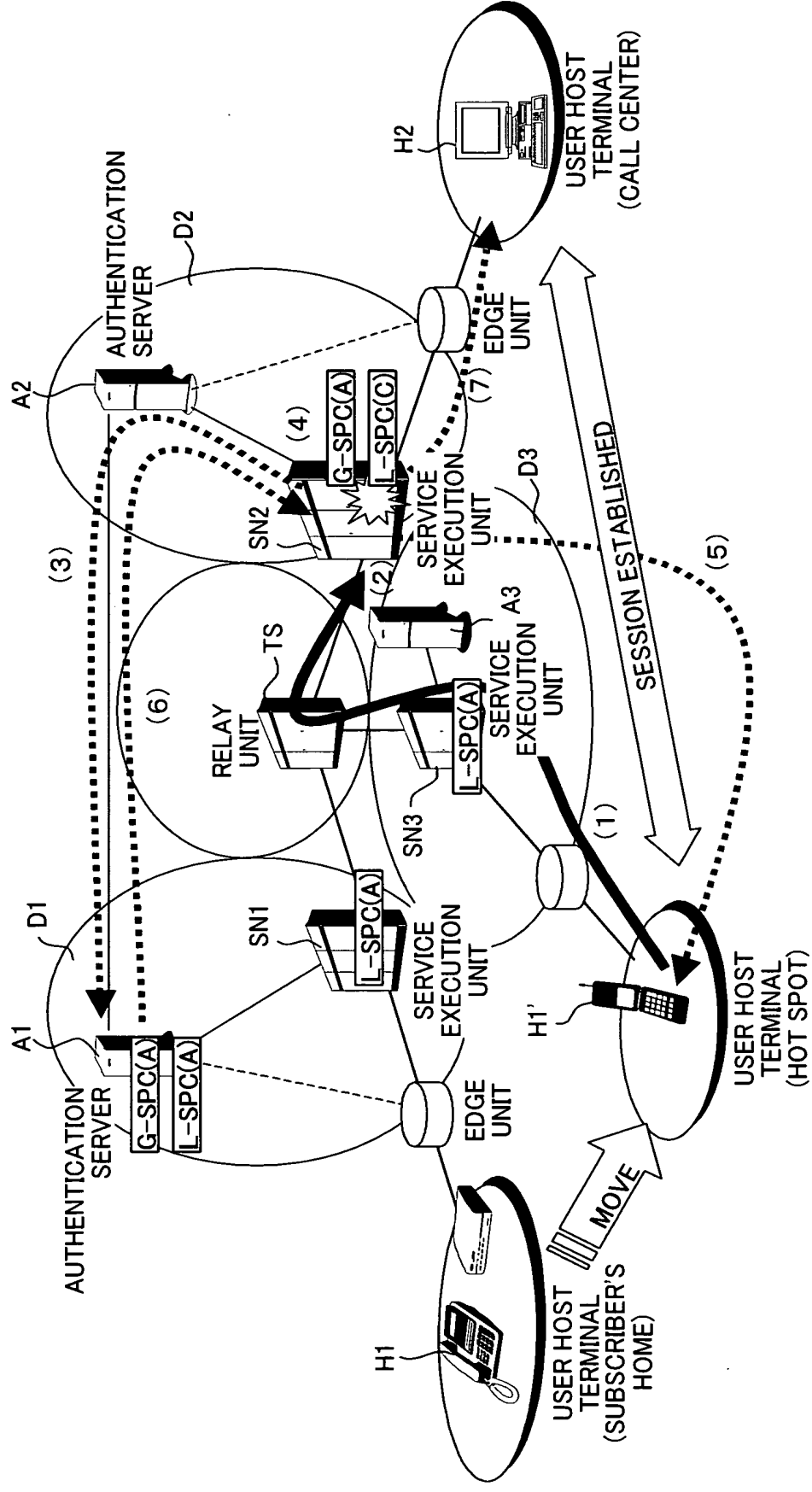


FIG. 16

